


CHEMICAL NAME
DENSITY
COLOR
WATER ABSORPTION 24/96h

PE UHMW
0.93 g/cm³

0.1 mg

THERMAL PROPERTIES

Melting temperature	135 °C
Minimum service temperature	-150 °C
Thermal conductivity at 23 °C	0,40 W/(K.m)
Temperature of deflection under load method A 1, 81 N/mm ²	42 °C
Max. Allowable service temperature in air	
For short periods	120 °C
Continuously for 5000/20 000 hours	80°C
Flammability	
« Oxygen index »	< 20 %
According to UL 94 (6 mm thickness)	HB

MECHANICAL PROPERTIES AT 23 °C

Tension test:	
Tensile stress at yield ISO 527	22/- Mpa
Tensile strain at yield ISO 527	13 %
Tensile strain at break ISO 527	> 50 %
Tensile modulus of elasticity ISO 527	3190 Mpa
Compression test	6 / 10.5 / 18 Mpa
Charpy impact strength- unnotched IOS 179	No Break
Charpy impact strength notched ISO 179	9 P kJ / m ²
Ball indentation hardness ISO 2039-1	-
Rockwell hardness ISO 2039-2	-

ELECTRICAL PROPERTIES AT 23 °C

Electric strength ISO 60243	45 KV /mm
Volume resistivity ISO 60093	> 10 ¹⁴ Ohm.cm
Surface resistivity ISO 60093	> 10 ¹³ Ohm.cm
Relative permittivity at	
100 Hz ISO 60250	2.1
1 MHz ISO 60250	2.9
Dielectric dissipation factor tan at	
100 Hz ISO 60250	0.0004
1 MHz ISO 60250	0.0008
Comparative tracking index (CTI) ISO 60112	600

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